

# U.S. Global Change Research Program

## Social Science Highlights

### Strategic Planning

The U.S. Global Change Research Program (USGCRP) coordinates and integrates global change research across 13 federal government agencies to ensure that it most effectively and efficiently serves the Nation and the world. Through interagency partnerships, working groups, and collaborations with leading experts, USGCRP works to advance climate science and the understanding of how global change is impacting society, both today and into the future. To date, USGCRP has made major advances in the knowledge of Earth's past and present climate, quantified changes in the Earth's climate systems, improved climate change projections for the future, and advanced the understanding of the vulnerabilities society may have to the impacts of global change.

With a 20+ year foundation of scientific research, assessments, and knowledge, USGCRP is better-equipped than ever to pursue an ambitious vision for its next decade of achievements. The vision laid out in USGCRP's new decadal Strategic Plan sustains the program's emphasis on advancing science and research on the impacts climate and global change, while also seeking to effectively inform decision making and broaden public understanding of global change and its impacts on society.

The new Plan also provides more emphasis on integrating physical, biological, and social sciences, both for improved understanding and to better inform decisions that the Nation needs to make on adapting to climate change and mitigating its effects.

### National Climate Assessment

The National Climate Assessment (NCA) is an important resource for understanding and communicating climate change science and impacts in the United States. It informs the nation about already observed changes, the current status of the climate, and anticipated trends for the future. The NCA process integrates scientific information from multiple sources and sectors to highlight key findings and significant gaps in our knowledge.

#### The Strategic Plan's Four Goals Are To:

##### 1. Advance Science

Advance scientific knowledge of the integrated natural and human components of the Earth system

##### 2. Inform Decisions

Provide sound science to inform timely, smart decisions to respond to global change impacts and vulnerabilities

##### 3. Conduct Sustained Assessments

Build sustained assessment capacity that improves the Nation's ability to understand, anticipate, and respond to the impacts of global change

##### 4. Communicate and Educate

Advance communications and education to broaden public understanding of global change and develop the scientific workforce of the future

The NCA is also identifying a system of indicators to track and evaluate climate impacts in the U.S.; these indicators will track changes in the physical climate, in ecosystems, and in societies. The NCA will help evaluate the effectiveness of our mitigation and adaptation activities and identify economic opportunities that arise as the climate changes. Finally, findings from the NCA provide input to federal science priorities and are used by U.S. citizens, communities, and businesses as they create more sustainable and environmentally sound plans for the nation's future.

The NCA report will draw on the methods and findings of social scientists in a number of ways:

1. Specific chapters within the report focus on the human aspects of climate change impacts, including chapters on human health; transportation; urban systems and infrastructure; rural communities; tribal, indigenous, and native lands and resources; and coastal development.
2. Many other chapters in the report are interdisciplinary in nature, integrating both natural science and social science findings as a part of their analyses and synthesis.



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3. A new set of chapters on decision support, adaptation, and mitigation, focus specifically on human responses to climate change.

4. Case studies throughout the report will highlight the ways in which societies have confronted questions related to climate change and climate change impacts.

The NCA is also implementing a comprehensive stakeholder engagement strategy that encompasses public participation in various aspects of the assessment and communication about climate change and the findings of the NCA. In addition to short-term outreach and engagement around specific topics and opportunities, the NCA is building NCAnet, a network of organizations engaged in long-term partnership to build and maintain capacity to conduct and use assessments across the country. Finally, the NCA is establishing a long-term strategy for evaluating its success in engaging a variety of producers and users of assessment information, in communicating about climate change and climate change impacts, and for evaluating the success of the assessment process itself.

## Inform Decisions

Across the United States and around the world, people are making decisions to effectively minimize (mitigate) and prepare for (adapt to) global change impacts on society, livelihoods, and environments. USGCRP's past work on understanding the causes and consequences of global change has created a strong scientific foundation for informing decision makers who need science to understand and envision a range of potential impacts, risks, vulnerabilities, opportunities, and trade-offs that are key for effective adaptation and mitigation actions.

## Climate Change and Human Health

The Interagency Crosscutting Group on Climate Change and Human Health (CCHHG) is charged with planning, coordinating, implementing, evaluating, and reporting on federal research and related scientific activities on the human health impacts of global environmental change. The ultimate goal of this integration is to ensure communities that

## Adaptation Research

The mission of the USGCRP's Adaptation Research program element is to ensure that the federal government's science enterprise informs adaptation decisions at a range of scales for a diversity of users. Current activities ongoing within the Adaptation Research program element include:

- Identification of existing capabilities and critical gaps in science for informing adaptation decisions and policies
- Improvement of the application and translation of science to meet the needs of decision makers
- Advancement of the social, behavioral, and economic sciences needed to visualize, analyze, and understand adaptation options
- Guidance for evaluating the effectiveness of adaptive actions

are healthy and resilient to climate change impacts.

The CCHHG focuses on increasing the understanding and awareness of all impacts of climate change on human health, and potential health benefits and unintended hazards that may result from climate change adaptation and mitigation strategies. The CCHHG incorporates a One Health approach, which recognizes that the health of humans, animals, and the environment are inextricably linked.

Current activities of the group include the following:

- Stakeholder engagement and education through listening sessions, scientific presentations, and continuing education opportunities at professional society and other meetings
- Data integration efforts to develop an interactive metadata clearinghouse of data sets, early warning systems, and monitoring tools related to the health impacts of global climate change that will serve as a pilot gateway to USGCRP's broader Global Change Information System
- Collaboration with OSTP to host a health impacts workshop for adaptation planning in response to recommendations in the IATF report to the President, Oct. 2011
- Regional health-related workshops to provide technical input into the NCA (Charleston and Seattle, Feb. 2012) that resulted in synthesis reports and regional project inventories for each workshop area



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